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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/809,981

03/26/2004

David R. Adaskin

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EXAMINER

GORDON, BRIAN R

ART UNIT

PAPER NUMBER

1797

NOTIFICATION DATE

DELIVERY MODE

01/30/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPOPS.LEGAL@agilent.com

Office Action Summary	Application No. 10/809,981	Applicant(s) ADASKIN ET AL.	
	Examiner Brian R. Gordon	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1-9-09.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-17 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-17 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 09, 2009 has been entered.

Response to Arguments

2. Applicant's arguments filed December 9, 2008 have been fully considered but they are not persuasive.

The amendment/remarks filed on December 9, 2008 has been considered and addressed in the Advisory Action of December 19, 2008 (Response included herein).

Applicant argues that selecting a frame is not equivalent to selecting a printhead. As previously stated the examiner disagrees. The claim only requires selecting at least one printhead assembly comprising a printhead. Applicant further relies upon paragraph 45 and points out "The Assembly 100 corresponds to the sum of all printheads on a writer". It should be noted that the sentence is specifically directed to a specific embodiment and moreso specifically the Assembly 100. On the other hand, claim 1 is broadly directed to a printhead assembly comprising a printhead. Therefore the claimed "printhead assembly" only requires the presence of a single printhead not a sum of

printheads as described in relationship to Assembly 100. There is no specific structural requirements of the claimed assembly other than a single printhead. Furthermore, there are no specific structural requirements given to define a single "printhead". Therefore any structure including a single dispensing device (such as a nozzle) may be considered equivalent to a printhead assembly as claimed. Furthermore, there is no "sum" requirement in the claims. Also it is unclear how one can have a sum of all printheads when claim 1 only requires a single printhead (dispenser). Furthermore there is no reference to a "writer" and its structural requirements in the claims. If applicant intends for the structure to be limited to that of paragraph 45, then applicant should amend the claims to clearly reflect such.

Applicant further asserts that "best non-error dispenser" is not a "type of dispenser" as intended by applicant. As previously stated "type of dispenser" is a broad characterization. If applicant intends for the term "type" to be limited to specific characteristics, traits, or classifications, then the claim should be amended to specify those classifications applicant intends for "type" to include. As presently claimed the term "type" does not preclude "best non-error dispenser" from being a "type" of dispenser. While applicant arguments reference paragraph 50 of the specification, it should be noted that limitations in the specification not included within the claims are not read into the claim. Therefore, applicant's arguments are not commensurate in scope with that of the claims. In view of the comments of the Final Office Action and those herein above the previous art rejections are hereby maintained.

As to the amendment of claim 9, it is unclear how one can have "any of" a single printhead. If there is only one printhead present then reagent drops can only be ejected from that single printhead.

In view of such, the previous rejection is hereby maintained.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitation "any of said printhead" in line 4. It is unclear how one can have "any of said printhead".

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1-10, 12-17, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Shchegrova et al. US 2003/0143329.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Shchegrova et al. discloses a method, apparatus, and computer program products useful in fabricating a chemical biopolymer arrays. The apparatus may include a head system, transport system, and a processor. The head system has multiple groups of drop dispensers. The transport system moves the head system with respect to a substrate. The processor dispenses drops from dispensers during operation of the transport system, in a pattern along a selected path for each group (abstract).

Biopolymers are typically found in biological systems and particularly include polysaccharides (such as carbohydrates), and peptides (which term is used to include polypeptides, and proteins whether or not attached to a polysaccharide) and polynucleotides as well as their analogs such as those compounds composed of or containing amino acid analogs or non-amino acid groups, or nucleotide analogs or non-nucleotide groups. [0024]

As described in Figure 8 the process includes a step of choosing a frame with the most non-error dispensers (830) from among the available frames. It will be appreciated that any criteria other than middle dispensers, could be used for selecting a first set from among those frames which equally qualify as having the most non-error dispensers. All of the frames selected to this point may then be examined (860) to see if each set has a working dispenser in at least one frame. Since frame Y was selected as the first frame and it has an error dispenser D_{y10} , this is not true. Therefore, a frame is selected (870) from among remaining frames which has the highest number of non-

error dispensers in sets not containing a non-error dispenser in previously selected frame (selecting printheads based on type and number of dispensers). At this point, the previously non-selected frames are W, X, and Z. [0042]

In a further step a best non-error dispenser is then selected (890) from among the Y and X frame dispensers in each of the foregoing sets using the pre-loaded into a memory 141 or manually entered by an operator criteria based on any one or more of size, location, or shape of a deposited drop, and the result stored in a memory (such as memory 141 in FIG. 9). [0044]

Operator input device 312 may, for example, be a keyboard, mouse, or the like.

Processor 140 has access to a memory 141, and controls print head system 210 (specifically, the activation of the ejectors therein), operation of the transport system, operation of each jet in print head system 210, capture and evaluation of images from the camera 304, and operation display 310 and speaker 314. Memory 141 may be any suitable device in which processor 140 can store and retrieve data, such as magnetic, optical, or solid state storage devices (including magnetic or optical disks or tape or RAM, or any other suitable device, either fixed or portable). Processor 140 may include a general purpose digital microprocessor suitably programmed from a computer readable medium carrying necessary program code, to execute all of the functions required of it as described below. It will be appreciated though, that when a "processor" such as processor 140 is referenced throughout this application, that such includes any hardware and/or software combination which will perform the required functions.

Suitable programming can be provided remotely to processor 140, or previously saved

in a computer program product such as memory 141 or some other portable or fixed computer readable storage medium using any of those devices mentioned below in connection with memory 141. For example, a magnetic or optical disk 324 may carry the programming, and can be read by disk reader 326. [0049]

Arrays may be read by any other method or apparatus than the foregoing, with other reading methods including other optical techniques (for example, detecting chemiluminescent or electroluminescent labels) or electrical techniques (where each feature is provided with an electrode to detect hybridization at that feature). Results from the reading may be raw results (such as fluorescence intensity readings for each feature in one or more color channels) or may be processed results such as obtained by rejecting a reading for a feature which is below a predetermined threshold and/or forming conclusions based on the pattern read from the array (such as whether or not a particular target sequence may have been present in the sample, or whether or not a pattern indicates a particular condition of an organism from which the sample came). The results of the reading (processed or not) may be forwarded (such as by communication) to a remote location if desired, and received there for further use (such as further processing). [0056]

Conclusion

7. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE**

FINAL even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, 1st Fri. Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1797

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian R Gordon/
Primary Examiner
Art Unit 1797